

SCOPE OF WORK
US EMBASSY DEPUTY CHIEF OF MISSION RESIDENCE SITE
RETAINING WALL STRENGTHENING DESIGN
ANKARA, TURKEY

A. BACKGROUND

There are reports of movement and cracking of the retaining walls along the west property line of the Deputy Chief of Mission Residence (DCR). U. S. Government wishes to hire a qualified expert to conduct the strengthening design of the retaining walls.

B. GENERAL

The main work elements under this SOW include:

1. Evaluation of the existing condition of the retaining wall.
2. Provide a complete design of strengthening the walls. The design shall not only meet structural requirements but also architectural, electrical lighting, security engineering, tree removal and replacement requirements.

C. WORK REQUIREMENTS

The Contractor shall perform the following as a minimum:

1. Review existing data
 - a. Review existing documents (see attachments in Section H)
 - b. Discuss with the neighbor property owner(s) for the temporary use of their property during construction. The rehabilitation measures will involve construction on either private (neighbors) or public (municipal) property. It is important that the work be coordinated with the landlords of the private properties and the municipality, and their written consent be obtained.
 - c. Determine the history of the site, what was built when and by whom, and what changes have been made to the surface grade and soil profile.
2. Investigate existing conditions.
 - a. Evaluate the condition of the walls, magnitude and types of movement, and size of cracks.
 - b. Review the existing soil boring profile behind the walls in attachment in H.3.
 - c. Investigate/Design recommendations for the retaining wall without damaging property of the neighbor.
3. Analyze the existing retaining walls to determine their adequacy for resisting the loads originally intended for the walls and the actual loading.
4. Prepare a report summarizing the work activities, observations, findings, conclusions, and recommendations in English. Meet with the embassy staff to present your conclusions and answer any questions regarding the report.
5. Provide a full design and construction documents of strengthening the retaining walls, after Embassy's concurrence with the recommended strengthening scheme
6. The design shall also meet architectural, electrical lighting, security engineering, tree removal and replacement requirements. The appearance of the finished surface shall match the existing surface.

7. Where the perimeter wall is strengthened or replaced on the west property line, the existing chain link fence shall be replaced with a steel picket and post anti-climb fence mounted on top of the new and repaired sections of the property retaining wall.
8. New anti-climb fence shall be built in accordance with the attached detail options to achieve an effective anti-climb dimension of 2.75 m between the top surfaces of the horizontal fence members.
9. Anchorage of the fence to the retaining wall shall be in accordance with the attached details or as otherwise determined by the structural engineer to achieve sufficient strength and stability.
10. Provide comprehensive calculations for the design.

D. DELIVERABLES

- a. Submit a site survey report & Schematic Design(35% Design) presenting the following:
 - Brief description of the walls, their construction, and present conditions;
 - Narrative of activities undertaken, both on and off the field, to evaluate the walls as well as to document its as-built conditions;
 - Discussions of the proposed strengthening schemes, including a comparison of their relative merits and advantages/disadvantages;
 - Recommendation on which schemes should be selected and the rationale for this choice;
 - Conceptual strengthening plans, sections, elevations, and details for the schemes;
 - Preliminary structural calculations confirming their viability; and
 - Field notes and sketches, photographs, etc.
- b. Submit, after Embassy's concurrence with the recommended strengthening scheme, a 90% Design with this scheme developed and detailed to the extent necessary to define the full scope of the strengthening work. Include updated drawings, calculations, and preliminary design and construction cost estimates for the selected scheme.
- c. Submit a final Design with all review comments resolved to the satisfaction of OBO.

General Deliverable Requirements:

- a. Submit three bound copies, and one electronic copy for each Report and Design submittal.
- b. Include a digital copy of relevant photographs. Annotate the pertinent subjects in each photograph.
- c. Prepare text reports in Microsoft Word, and drawings using AutoCAD 2005 (or later).
- d. Provide drawings on a size appropriate for the scale and scope of this project. Minimum size shall be 280mm x 432mm.
- e. All dimensions shall be in hard metric units.
- f. The Contractor shall provide a written response to all OBO review comments indicating compliance or providing justification for non-compliance. All review comments shall be resolved prior to the next submission. Incorporate resolution of review comments from the previous submission into the subsequent submission.
- g. Any of the above stages may require additional submissions if OBO requires reconciliation of particular features.

E. SCHEDULE

Task	Action	Allotted Time	Cumulative Time *
		(Calendar Days)	
Issue Notice to Proceed	OBO	1	1
Site Survey	Contractor	7	8
Submit Site Survey Report & SD(35% Design)	Contractor	28	36
Review Report & SD	OBO	14	50
Submit 90% Design	Contractor	21	71
Review 90% Design	OBO	14	85
Submit Final Design	Contractor	14	99
Review/Backcheck Final Design	OBO	7	106

F. PAYMENT

Invoices may be submitted after each report or design submission but not before the time allotted for OBO review. Submit final invoice after OBO's acceptance of the final Design. 10% of the invoice amount will be held at each submission.

G. SECURITY REQUIREMENTS

It is anticipated that the performance of this delivery order will require working with both sensitive but unclassified (SBU) and unclassified material. As such, the following security requirements are in effect:

1. Approval by the OBO is required for all assignments of Contractor personnel to the project.
2. Material designated as SBU (such as the site plans), while unclassified and does not pose a national security risk, should be protected from unauthorized disclosure.

H. ATTACHMENTS

1. Site Plan, Recommended Section Details and Photos.
2. Anti-Climb Wall Type Options.

The following attachments are to be provided at the time of award:

3. Two Plat Plans. June 18, 1955.
4. Property Survey. July, 1956.
5. Survey Plan, 1974.
6. Report on the Retaining Wall of the US Deputy Chief of Mission's Residence. October, 1996. By TEKAR Ltd.
7. Engineering Study and Design Services EMR and DCM Residences, 1996.
8. DCR Building Repair and Reconstruction of Retaining Wall. January 17, 2007.
9. Report for US Embassy, DCR, Topographic, Utility and Boundary Survey. Nov., 2012.